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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/712,760

11/12/2003

James R. Mault

7394

53186 7590 04/09/2007
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EXAMINER

NATNITHADHA, NAVIN

ART UNIT	PAPER NUMBER
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3735

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

04/09/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/712,760

Applicant(s)

MAULT, JAMES R.

Examiner

Navin Natnithithadha

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3735

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 48-79 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 48-79 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see Remarks, pg. 2, filed 16 January 2007, with respect to Applicant not complying with one or more conditions for receiving the benefit of an earlier filing date under 35 U.S.C. 120 have been fully considered and are persuasive. Applicant's requirement to delete the reference to the prior-filed application has been withdrawn.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 48, 51-58, 61-65, 67, and 69-79 are rejected under 35 U.S.C. 102(e) as being anticipated by Binder, US 4,368,740 A ("Binder").

Claims 48, 51-58, 61-65, 67, and 69-79: Binder teaches an indirect calorimeter (see Abstract), comprising: a flow tube 13; a flow meter 6 coupled to flow tube 13; an oxygen sensor 10 coupled to flow tube 13 and configured to generate an output associated with a concentration of oxygen in exhaled and inhaled gases (see col. 4, ll. 26-30); a computation unit 96 configured to: process the output of the flow meter 6 to determine the volume of inhaled and exhaled gases, process the output of the oxygen sensor 10

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to determine the concentration of oxygen in inhaled and exhaled gases, determine an amount of oxygen consumed (VO_2) 107 and amount of carbon dioxide produced (VCO_2) 94 (see figs. 1-2), determine a respiratory quotient (respiratory exchange ratio, R) 108, and determine a respiratory parameter (VO_2 , VCO_2 , R); a respiratory connector/mask (mouthpiece) 3 coupled to the flow tube 13; a display unit 126.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 49, 50, 59, 60, 66, and 68 are rejected under 35 U.S.C. 103(a) as being unpatentable over Binder, as applied to claims 48, 58, 65, and 67 above, and further in view of over Harnoncourt et al, US 5,503,151 A ("Harnoncourt").

Claims 49, 50, 59, 60, 66, and 68: Binder does not teach an ultrasonic flow meter or a fluorescence quench oxygen sensor. However, both these types of sensors are well known in the art. For example, Harnoncourt teaches an apparatus 10 for measuring the parameters of respiratory gases (see fig. 1), comprising: a respiratory tube 12, ultrasonic flow sensor 22, and fluorescence quench oxygen sensor 28 (see col. 2, ll. 46-57, col. 4, ll. 5-10 and 16-30). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify Binder with Harnoncourt's ultrasonic and fluorescent sensors because Harnoncourt suggests that

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"[f]rom the primary parameters measured using the apparatus in accordance with the invention it is possible for derived quantities, such as for example oxygen uptake, CO.sub.2 release, the respiratory quotient, the vital capacity, the respiratory volumetric flow rate, the respiratory work and the like, to be calculated" (see Harnoncourt, col. 3, ll. 33-41).


Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Navin Natnithithadha whose telephone number is (571) 272-4732. The examiner can normally be reached on Monday-Friday, 8:00am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor, II can be reached on (571) 272-4730. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Navin Natnithithadha
Patent Examiner
Art Unit 3735


NN
04/02/2007